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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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David B. Naughton

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EXAMINER

HUSON, MONICA ANNE

ART UNIT

PAPER NUMBER

1791

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DELIVERY MODE

12/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/840,022	Applicant(s) NAUGHTON, DAVID B.	
	Examiner MONICA A. HUSON	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the RCE filed 24 November 2009.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson et al. (U.S. Patent 5,746,961), in view of Asato et al. (U.S. Patent 5,030,681). Regarding Claims 1-2, and 5, Stevenson et al., hereafter "Stevenson," show that it is known to carry out a method of manufacturing a high surface energy molded article with an injection mold having an inner surface (Abstract), the method comprising: spraying a coating solution to the inner surface of the injection mold (Abstract; Column 3, lines 8-9; Column 4, lines 66-67); introducing a thermoplastic resin having a temperature on the coating in the injection mold, the thermoplastic resin having a predetermined heat energy, to transfer at least a portion of the heat energy of the thermoplastic resin to the coating (Column 2, lines 59-62; it is interpreted that the resin will implicitly be introduced at an appropriate molding temperature, such as that which is claimed); defining a molded article having a surface (Column 3, lines 10); and maintaining contact of the thermoplastic resin and the coating for a predetermined time period to diffuse the coating through at least a portion of the surface of the molded article (Abstract; Column 7, lines 4-10). Stevenson does not show using a chlorinated polyolefin coating. Asato et al., hereafter "Asato," show that it is known that a coating of chlorinated polyolefin increases surface energy for enhanced adhesion (Abstract; Column 2, lines 18-26). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Asato's particular coating during

Art Unit: 1791

Stevenson's molding process in order to impart the desired adhesion and stability to the final molded article (See Asato, Abstract; Column 2, lines 7-17).

Regarding Claims 6-7, Stevenson shows the process as claimed as discussed in the rejection of Claim 1 above, including a method wherein an electrically conductive substance of nickel is also applied to the inner surface of the mold (Column 4, line 53), meeting applicant's claim.

Claims 3-4, 8-13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson and Asato, further in view of Pettit, Jr. et al. (U.S. Patent 4,937,288).

Regarding Claims 3-4, Stevenson shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not show electrically charging the particles. Pettit, Jr., et al., hereafter "Pettit, Jr." show that it is known to carry out a method of coating, including applying an electrical charge to the plurality of powder particles of the coating and electrically grounding the article to be coated (Column 15, lines 34-36). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Pettit, Jr.'s electrical charging steps during Stevenson's spraying process because electrostatic spraying is known as a feasible method for applying a coating to a substrate.

Regarding Claims 8-11, Stevenson et al., hereafter "Stevenson," show that it is known to carry out a method of manufacturing a high surface energy molded article with an injection mold having an inner surface (Abstract), the method comprising: spraying a coating solution to the inner surface of the injection mold (Abstract; Column 3, lines 8-9; Column 4, lines 66-67); introducing a thermoplastic resin having a temperature on the coating in the injection mold, the thermoplastic resin having a predetermined heat energy, to transfer at least a portion of the heat energy of the thermoplastic resin to the coating (Column 2, lines 59-62; it is interpreted that the resin will implicitly be introduced at an appropriate molding temperature, such as that which is claimed); defining a molded article having a surface (Column 3, lines 10); and maintaining contact of the thermoplastic resin and the coating for a predetermined time period to diffuse the

Art Unit: 1791

coating through at least a portion of the surface of the molded article (Abstract; Column 7, lines 4-10). Stevenson does not show using a chlorinated polyolefin coating. Asato et al., hereafter "Asato," show that it is known that a coating of chlorinated polyolefin increases surface energy for enhanced adhesion (Abstract; Column 2, lines 18-26). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Asato's particular coating during Stevenson's molding process in order to impart the desired adhesion and stability to the final molded article (See Asato, Abstract; Column 2, lines 7-17). Stevenson does not show electrically charging the particles. Pettit, Jr., et al. show that it is known to carry out a method of coating, including applying an electrical charge to the plurality of powder particles of the coating and electrically grounding the article to be coated (Column 15, lines 34-36). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Pettit, Jr.'s electrical charging steps during Stevenson's spraying process because electrostatic spraying is known as a feasible method for applying a coating to a substrate.

Regarding Claims 12-13, Stevenson shows the process as claimed as discussed in the rejection of Claim 8 above, including a method wherein an electrically conductive substance of nickel is also applied to the inner surface of the mold (Column 4, line 53), meeting applicant's claim.

Regarding Claim 15, Stevenson shows the process as claimed as discussed in the rejection of Claim 8 above, but he does not show the particular surface energy of the claimed invention. However, since Stevenson, Asato, and Pettit, Jr. teach the claimed process, then the resulting product would have a surface energy of at least 38 dynes per centimeter after the step of removing the molded article from the mold. Further, because Asato teaches improved adhesion of chlorinated polyolefin coatings, it is submitted that Stevenson and Asato suggest the improved surface energy of at least 38 dynes/cm.

Art Unit: 1791

Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson and Pettit, Jr.. Regarding Claims 16-17, Stevenson shows that it is known to carry out a method of manufacturing a high surface energy molded article with an injection mold having an inner surface (Abstract), the method comprising: spraying a coating solution to the inner surface of the injection mold (Abstract; Column 3, lines 8-9; Column 4, lines 66-67); introducing a thermoplastic resin having a temperature on the coating in the injection mold, the thermoplastic resin having a predetermined heat energy, to transfer at least a portion of the heat energy of the thermoplastic resin to the coating (Column 2, lines 59-62; it is interpreted that the resin will implicitly be introduced at an appropriate molding temperature, such as that which is claimed); defining a molded article having a surface (Column 3, lines 10); and maintaining contact of the thermoplastic resin and the coating for a predetermined time period to diffuse the coating through at least a portion of the surface of the molded article (Abstract; Column 7, lines 4-10). Stevenson does not show electrically charging the particles. Pettit, Jr., shows that it is known to carry out a method of coating, including applying an electrical charge to the plurality of powder particles of the coating and electrically grounding the article to be coated (Column 15, lines 34-36). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Pettit, Jr.'s electrical charging steps during Stevenson's spraying process because electrostatic spraying is known as a feasible method for applying a coating to a substrate.

Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevenson and Pettit, Jr., further in view of Asato. Regarding Claims 18-19, Stevenson shows the process as claimed as discussed in the rejection of Claim 17 above, including a method wherein an electrically conductive substance of nickel is also applied to the inner surface of the mold (Column 4, line 53), but he does not show using a chlorinated polyolefin coating. Asato shows that it is known that a coating of chlorinated polyolefin increases surface energy for enhanced adhesion (Abstract; Column 2, lines 18-26). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Asato's particular coating during Stevenson's

Art Unit: 1791

molding process in order to impart the desired adhesion and stability to the final molded article (See Asato, Abstract; Column 2, lines 7-17).

Response to Arguments

Applicant's arguments filed 24 November 2009 are substantially the same as the arguments filed 13 March 2009. The arguments have been fully considered but they are not persuasive. The following section is reproduced from the Final Action mailed 27 May 2009.

Applicant contends that Stevenson does not show any coatings, specifically chlorinated resins, that are capable of increasing surface energy. This is not persuasive because Stevenson was not cited to show these features.

Applicant contends that Stevenson teaches away from the coating because he prefers solvent resistance, hardness, and surface toughness. This is not persuasive because there is no evidence in the record that these properties are mutually exclusive with increased surface energy.

Applicant contends that Asato fails to cure the alleged deficiencies of Stevenson because Asato and Stevenson are not properly combinable with each other. In response to applicant's argument that Asato and Stevenson are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both references are in the field of applicant's endeavor (applying coatings to injection molded articles).

Regarding Claims 3-4, 8-13, and 15-19, applicant contends that Pettit, Jr. does not cure the alleged deficiencies of Stevenson as previously argued. These alleged deficiencies are not persuasive as noted above.

Further, applicant contends that Pettit, Jr. and Stevenson are not properly combinable with each other. In response to applicant's argument that Pettit, Jr. and Stevenson are nonanalogous art, it has been held that a prior art reference must either

Art Unit: 1791

be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both references are in the field of applicant's endeavor (applying coatings to substrates).

Continued Examination Under 37 CFR 1.114

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONICA A. HUSON whose telephone number is (571)272-1198. The examiner can normally be reached on Monday-Friday 7:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone

Art Unit: 1791

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Monica A Huson
Primary Examiner
Art Unit 1791

/Monica A Huson/

Primary Examiner, Art Unit 1791